

Listing of Claims**Claim 1 (cancelled)**

Claim 2 (new) An integrated customer premise system for connection to both an external analog telephone network and to a digital packet network for conducting both analog and voice-over -packet (VoP) telephone calls in the same customer premise system, said system comprising

an analog call processor,

an analog interface connecting telephone calls from the external analog telephone network to said analog call processor,

a VoP call processor,

an digital interface for connecting VoP telephone calls from the external packet network to said VoP call processor;

a plurality of customer audio devices for use in either an analog telephone call from the external analog telephone network or a digital VoP telephone call from the external packet network, and

a switching and bridging system connected to said analog call processor and said VoP call processor for connecting one or both of said analog and digital VoP telephone calls to said customer audio devices.

Claim 3 (new) The integrated customer premise system in accordance with claim 2 wherein said digital interface provides one of LAN functionality and modem functionality.

Claim 4 (new) The integrated customer premise system in accordance with claim 2 wherein said analog interface includes an analog front-end and a digital access and said digital interface includes a digital front-end and a communications protocol controller.

Claim 5 (new) The integrated customer premise system in accordance with claim 4 wherein said switching and bridging system includes an analog switch and bridge, an audio codec, and a digital switch and bridge.

Claim 6 (new) The integrated customer premise system in accordance with claim 5 wherein said switching and bridging system further includes a plurality of echo cancellers.

Claim 7 (new) The integrated customer premise system in accordance with claim 6 wherein said echo cancellers include forward echo cancellers.

Claim 8 (new) The integrated customer premise system in accordance with claim 5 wherein said analog switch and bridge includes switch elements connected to individual of said customer audio devices and adder elements interconnecting said customer audio devices and said digital switch and bridge includes switch elements and adder elements interconnecting said analog telephony processor and said VoP telephone processor.

Claim 9 (new) The integrated customer premise system in accordance with claim 5 wherein said audio codec interconnects said analog switch and bridge and said digital switch and bridge.

Claim 10 (new) The integrated customer premise system in accordance with claim 5 further comprising customer input/output devices and an application controller connected to said input/output devices and to said analog telephony processor and said VoP telephony processor.

Claim 11 (new) The integrated customer premise system in accordance with claim 8 wherein a plurality of VoP telephone calls are transmitted simultaneously and received through said digital front end and said VoP call processor, said VoP call processor including a speech compressor and decompressor.

Claim 12 (new) The integrated customer premise system in accordance with claim 8 further comprising a plurality of analog interfaces connected to said analog call processor.

Claim 13 (new) In combination,

an integrated customer premise system for connection to both an external analog telephone network and to a digital packet network for conducting both analog and voice-over-packet (VoP) telephone calls in the same customer premise system, said system comprising

a digital processor including an analog call processor, a VoP call processor, and a command response processor;

interfaces connecting telephone calls from the external analog telephone network to said analog call processor and for connecting VoP telephone calls from the external packet network to said VoP call processor;

a plurality of customer audio devices; and

a switching and bridging system connected to said analog call processor and said VoP call processor for connecting one or both of said analog and digital telephone calls to said customer audio devices; and

a computing device connected to said command response processor, whereby said computing device obtains access to said digital packet network through said command control processor.

Claim 14 (new) The combination in accordance with claim 13, wherein said computing device includes a host controller connected through an interface to said command control processor.

Claim 15 (new) The combination in accordance with claim 13 wherein said computer device includes a digital interface connected to the external packet network and said interface for connecting VoP telephone calls from the external packet network to said VoP call processor includes said computer device.